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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/760,201 | 01/21/2004 | Kia Silverbrook | MPA13US | 1360 |
| 24011 | 7590 | 06/20/2006 | EXAMINER | |
| SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA | | | UHLENHAKE, JASON S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2853 | |

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

HJ

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/760,201 | Applicant(s) SILVERBROOK ET AL. | |
| | Examiner Jason Uhlenhake | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5 - 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook (U.S. Pat. 6,916,082) in view of Silverbrook (U.S. Pub. 2003/0156155) and Silverbrook (U.S. Pat. 7,021,843)

Silverbrook ('082) discloses:

- ***regarding claim 1***, two fluid connectors provided to each connect with a longitudinal end of a respective printhead module, each of the fluid connectors being arranged to connect at least one fluid delivery hose from a fluid supply to the at least one channel of the support member mounted at the corresponding longitudinal end of the respective printhead module (Column 5, Lines 63 – 68; Column 6, Lines 1 – 25)
- a casing in which the at least two printhead modules are removably mounted (Column 6, Lines 36 – 40; Column 5, Lines 49 – 54)

- **regarding claim 2**, the support member has complementary female (82, 84 of Figure 8) and male (78, 80 of Figure 8) end portions (Column 5, Lines 63 – 68; Column 6, Lines 1 – 6)
- first one of the two fluid connectors is arranged to interconnect with the female end portion, and a second one of the two fluid connectors is arranged to interconnect with the male end portion (Column 5, Lines 63 – 68; Column 6, Lines 1 – 6)
- **regarding claim 5**, wherein the fluid connectors have at least one tubular portion for connecting with the associated at least one fluid delivery hose and each tubular portion is arranged to be in fluid connection with the at least one channel of the printhead module (Column 5, Lines 63 – 68; Column 6, Lines 1 – 6)
- **regarding claim 6**, wherein each tubular portion is arranged so as to form a linear fluid connection with the at least one first channel (Column 5, Lines 63 – 68; Column 6, Lines 1 – 6)
- **regarding claim 7**, wherein the at least one tubular portion is arranged so as to form a linear fluid connection with the at least one first channel (Column 5, Lines 63 – 68; Column 6, Lines 1 – 6)
- **regarding claim 8**, each printhead module formed as a unitary arrangement of at least two printhead integrated circuits (Column 2, Lines 44 – 68)
- support member, at least one fluid distribution member mounting the at least two printhead integrated circuits to the support member (Column 2, Lines 55 – 62; Column 3, Lines 1 – 15), and an electrical connector for connecting electrical signals to the at least two printhead integrated circuits (Column 2, Lines 35 – 38)

Art Unit: 2853

- each support member has plurality of apertures extending through a wall of the support member arranged so as to direct the printing fluid from the respective channel to associated nozzles in both , or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (Column 2, Lines 40 – 43; Column 3, Lines 1 – 15)

Silverbrook ('082) does not disclose expressly the following:

- ***regarding claim 1***, at least two printhead modules each comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media, and a support member supporting the at least two printhead integrated circuits

- wherein each support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits, which is configured to communicate the printing fluid with the channel of the adjacent support member

Silverbrook ('155) discloses:

- ***regarding claim 1***, at least two printhead modules each comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media (Paragraphs 0013 - 0016) and a support member (10 of Figure 3; Paragraph 0068) supporting the at least two printhead integrated circuits (Paragraph 0063), for the purpose of easily removing and replacing any defective chips in the printhead array, without replacing the entire printhead.

Silverbrook ('843) discloses:

- **regarding claim 1**, wherein each support member (Column 10, Lines 63 – 67; Column 11, Lines 4 – 5) has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits, which is configured to communicate the printing fluid with the channel of the adjacent support member (Column 3, Lines 9 – 40), for the purpose of providing a fluid passageway to communicate with the printhead chips.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of at least two printhead modules each comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media, and a support member supporting the at least two printhead integrated circuits; wherein each support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits, which is configured to communicate the printing fluid with the channel of the adjacent support member as taught by Silverbrook ('843) into the device of Silverbrook ('155) and Silverbrook ('843). The motivation for doing so would have been to easily removing and replacing any defective chips in the printhead array, without replacing the entire printhead, and provide a fluid passageway to communicate with the printhead chips.

Claims 3, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook (U.S. Pat. 6,916,082) as modified by Silverbrook (U.S. Pub. 2003/0156155)

and Silverbrook (U.S. Pat. 7,021,843) as applied to claim 1 above, and further in view of Wong et al (U.S. Pat. 6,328,423)

Silverbrook ('082) as modified by Silverbrook ('155) discloses:

- ***regarding claim 3***, interconnected fluid connectors (Silverbrook ('082): Column 5, Lines 63 – 68; Column 6, Lines 1 – 6)

Silverbrook ('082) as modified by Silverbrook ('155) and Silverbrook ('843) does not disclose expressly the following:

- ***regarding claim 3***, a sealing adhesive is provided at the interfaces of the interconnected fluid connectors

- ***regarding claim 4***, the sealing adhesive is an epoxy

Wong et al discloses:

- ***regarding claim 3***, a sealing adhesive is provided at the interfaces of the interconnected fluid connectors (Column 3, Lines 1 – 4, 20 - 23), for the purpose of bonding/sealing fixtures and preventing ink leakage.
- ***regarding claim 4***, the sealing adhesive is an epoxy (Column 3, Lines 1 – 4, 20 - 23), for the purpose of bonding/sealing fixtures and preventing ink leakage.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of a sealing adhesive is provided at the interfaces of the interconnected fluid connectors; the sealing adhesive is an epoxy as taught by Wong et al into the device of Silverbrook ('082) as modified by Silverbrook ('155) and Silverbrook ('843). The motivation for doing so would have been to bond/seal fixtures and preventing ink leakage.

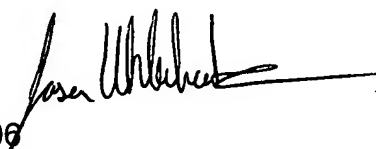
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU
June 12, 2006


K. FEGGINS
PRIMARY EXAMINER
6/06